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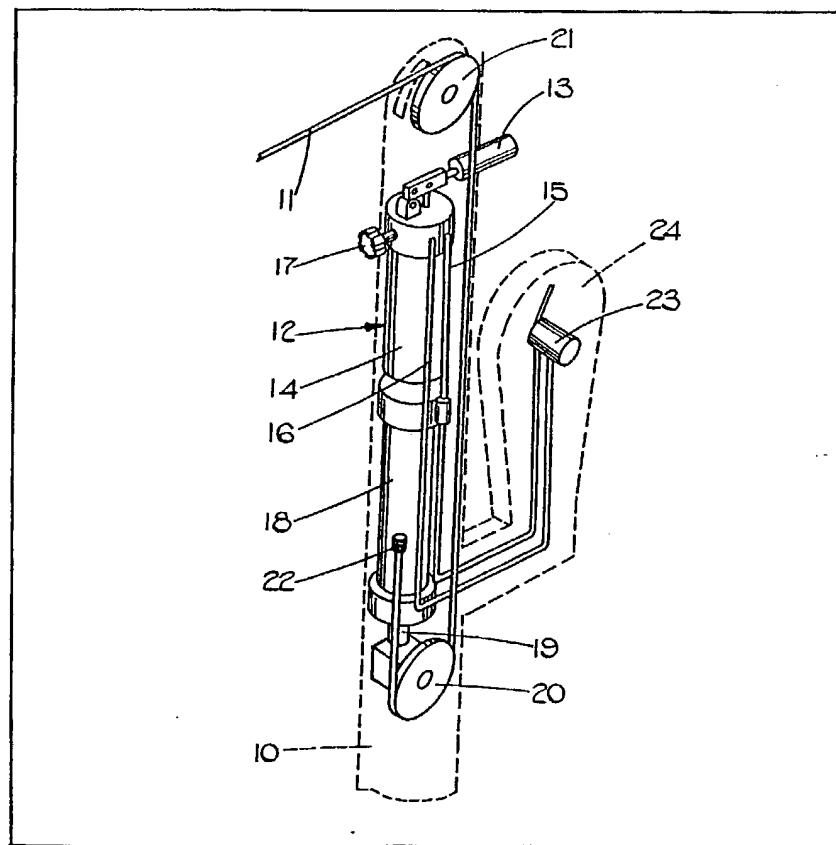
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(54) Timer-operated recreational
apparatus

(57) A cord 11 of a tennis net (not
shown) is led over pulleys 20, 21 in a
post 10. The end 22 of the cord 11 is
fixed and the pulley 20 is movable by

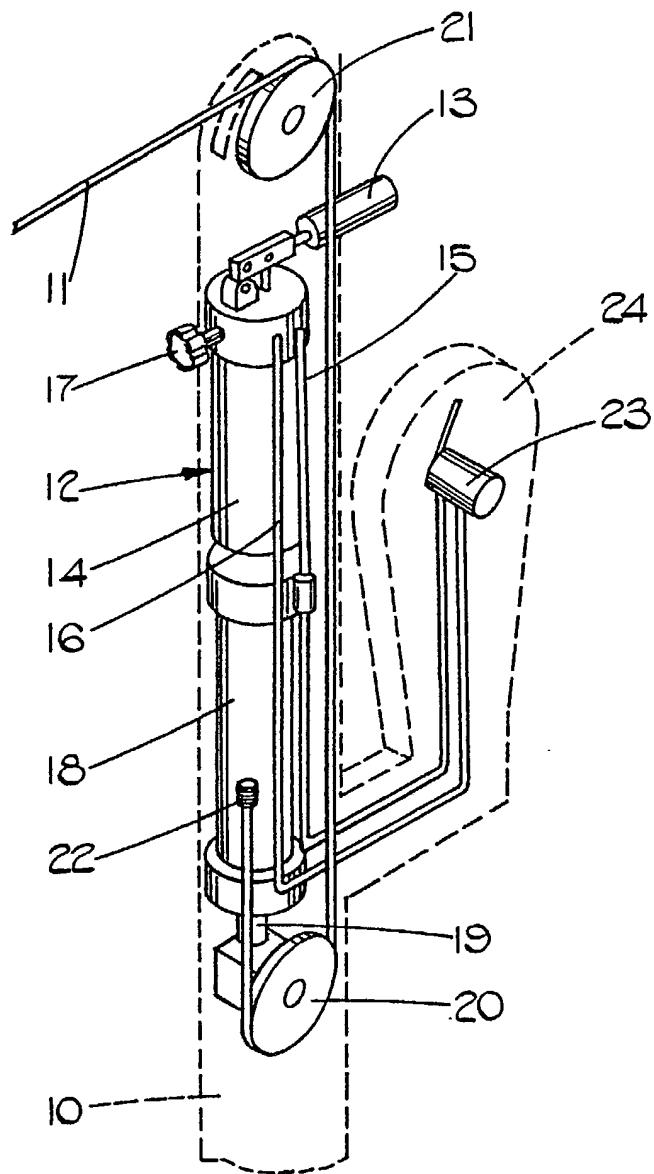
a piston 19 to raise the net. Pressure
is applied to the piston 19 by a hand
pump 12 and a by-pass valve 23 is
operable by a timer 24 to release the
piston pressure and lower the net
under gravity. The timer 24 may be
coin operated.



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SPECIFICATION

Timer-operated recreational apparatus

Where recreational facilities are provided in, for example, municipally owned locations, it has

- 5 frequently been found to be uneconomical to provide an attendant to collect fees from users of the apparatus, in which case the facilities are either provided free, or more often withdrawn.
 Where a facility involves the use of a fixed
 10 apparatus, it is therefore advantageous if this apparatus can be rendered usable by a coin-operated timer. It is desirable that the "normal", or resting, state of the apparatus shall be its unusable condition, and that it can be held, for a
 15 duration set by the timer, in its usable condition.

Return of the apparatus to its rest, or unusable, condition is conveniently effected by gravity, so that no energy input to the apparatus is required at the end of the timed period. For some types of
 20 apparatus it will be necessary to provide biasing weights which will return the apparatus to its rest condition. However, some types of apparatus, as for example, tennis or badminton nets, are acted upon by gravity when in use, and these latter
 25 types of apparatus lend themselves readily to the present invention.

According to the invention there is provided a timer operated recreational apparatus comprising an element which is required to be in a first,
 30 operative position for use, said element being movable by gravity to a second, inoperative position, means for setting said element to its operative position, a timer, and means, operable by said timer, for retaining said element in its
 35 operative position.

An embodiment of the invention, as applied to a post for a tennis net, will now be described by way of example only and with reference to the accompanying drawing, which shows,
 40 diagrammatically and pictorially, the upper part of a tennis net post.

As shown in the drawing, a tennis post is indicated generally at 10, and has associated therewith a mechanism for winding up and
 45 releasing the head cord 11 of a tennis net. The cord 11 can be wound in to lift the net to an operating position by means of a hand-operated hydraulic pump 12 of the type commercially available from Powermatic Hydraulic Equipment
 50 Public Limited Company, of Letchworth, England, under the designation HP 1100/160. The handle 13 of the pump 12 extends through a slot (not shown) in the post 10. The pump 12 includes a reservoir 14. A pressure line 15 can be supplied
 55 with fluid under pressure from the pump 12, and a return line 16 communicates with the reservoir 14. An adjustably restricted fluid flow between the lines 15, 16 can be effected by means of a control 17 which extends externally of the post 10. The
 60 pressure line 15 communicates with the upper end of a cylinder 18 from which a piston 19 projects downwardly and supports a pulley 20. A further pulley 21 is mounted adjacent the upper end of the post 10 and the cord 11 has one end

65 22 anchored relative to the post 10. The cord 11 is led round the pulleys 20, 21 and extends through a suitable opening in the post 10.

The pressure and return lines 15, 16 are interconnected through a by-pass valve 23. The
 70 valve 23 is biased to an open position and is actuatable shut by a coin operated timing device 24 which is mounted on the post 10. The device 24 is conveniently a parking meter unit of the type manufactured by Fisher Carpark public limited
 75 company, of Halifax, England. The valve 23 is conveniently mounted within the meter unit 24 and is a two-port spring-return valve of the type available from Powermatic Hydraulic equipment public limited company.

80 In use with the valve 23 open tension in the cord 11, from the weight of its net, will displace the piston 19 upwards and the net will be lowered. Operation of the pump 12 will be ineffective to raise the net. An appropriate coin
 85 inserted into the meter unit 24 causes the valve 23 to be shut, whereupon the net may be raised by operation of the pump 12. The height of the net may be adjusted by permitting restricted flow between the lines 15, 16 by means of the control
 90 17. At the end of a prepaid period the timer unit 24 opens the valve and the net drops under gravity.

In alternative embodiments a timing device, instead of being coin-operated may be triggered
 95 by other suitable means, for example by a key, so that key-holders may have repeated use of the equipment. Other triggering devices such as magnetic cords may be used. In a further alternative the timing device may merely be
 100 manually triggered, without any payment. Release of the apparatus by the timer at the end of a predetermined period would then indicate that a reasonable time for play has expired.

Timing devices other than a parking meter unit may be used. For example the insertion of a coin, or other initiating act, may allow the hand pump 12 to displace a spring-biased dashpot which in its displaced position operates a by-pass valve corresponding to the valve 23 described above, so
 110 that the net cord may be tensioned by the piston 19, as before. At the end of a period determined by movement of the dashpot back to its original position the by-pass valve is re-opened and the net lowered.

115 Though the invention has been described in relation to an element, for example a tennis net, which forms part of the equipment of a game, it will be understood that the apparatus could alternatively comprise an element which in its inoperative position will obstruct or prevent a game being played. In this latter case the element would be moved away from its obstructing position for a duration set by the timing device.

CLAIMS

- 125 1. A timer operated recreational apparatus comprising an element which is required to be in a first, operative position for use, said element being

movable by gravity to a second, inoperative position, means for setting said element to its operative position, a timer, and means, operable by said timer, for retaining said element in its 5 operative position.

2. An apparatus as claimed in Claim 1, in which said means for setting the element to an operative position is manually operable.

3. An apparatus as claimed in Claim 1 or Claim

10 2, in which said means for setting the element to an operative position comprises a hydraulic pump and a hydraulic actuator operable by said pump and operatively connected to said element.

4. An apparatus as claimed in any preceding

15 Claim, in which said timer is coin-operable.

5. A timer operated recreational apparatus substantially as hereinbefore described with reference to the accompanying drawing.